



# NOAA's Teacher at Sea Program



## 2016 Year in Review

January 2017



# NOAA's Teacher at Sea Program 2016 Year in Review



## Overview

- Operational Review
- 2016 Special Alumni Season – Teacher Spotlights
- Alumni Activities and Events – Highlights
- 2017 Season Outlook



“I know I am far from a professional scientist, but through NOAA, I can now speak authentically and accurately about what happens in the field and why.”

- TAS '16 **Denise Harrington**



# NOAA's Teacher at Sea Program 2016 Year in Review



## Operational Review

- Revised program operations and reorganized team member duties
- Conducted special season focused on alumni
  - 9 TAS alumni
  - 3 new TAS through continued partnerships
- Streamlined and overhauled online training system
- Participated in external evaluation to be completed March 2017



"My students will learn from this adventure of mine that there are programs that can lead them to successful oceanic careers."

- TAS '16 **Julia Harvey**

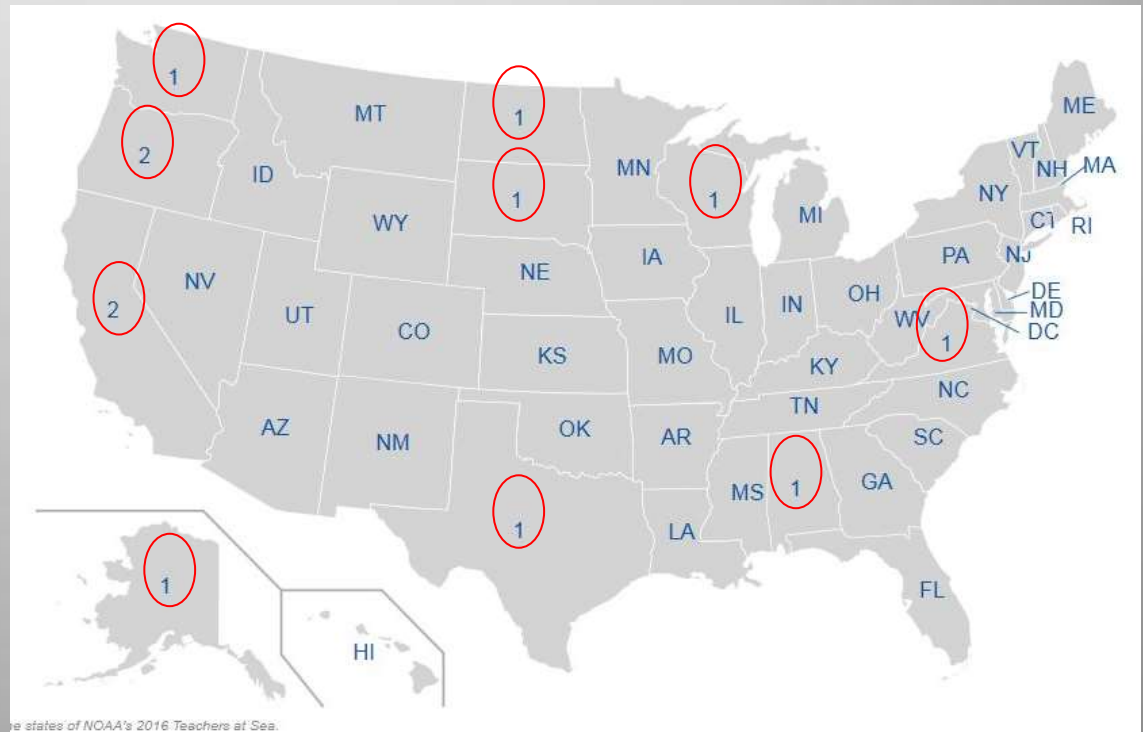


# NOAA's Teacher at Sea Program 2016 Year in Review



## 2016 Special Alumni Season

- Teachers sailed: **12**
  - 3** elementary
  - 2** middle school
  - 7** high school
- Days at sea: **182**
- Research hours: **2,184**
- States represented: **10**
- Media articles/interviews: **21**





# NOAA's Teacher at Sea Program 2016 Year in Review



## Teacher Spotlight: Mary Cook – First cruise & Alumni cruise

- First sailed in 2004 on NOAA Ship *Ronald H. Brown*
- Now teaches in Scammon Bay, Alaska – a rural Yupik Eskimo village
- In 2016, sailed with OER mission on R/V *Norseman II* surveying corals in Glacier Bay, Alaska
- All of Scammon Bay School (grades PreK-12) followed Mary's adventures



*TAS '16 Mary Cook (holding eagle mascot) poses with Scammon Bay School's 4<sup>th</sup> grade class, who won the school's banner contest*



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## Teacher Spotlight: Spencer Cody – First Cruise

- Teaches in Hoven, South Dakota
- First sailed in 2014 on NOAA Ship *Pisces* – days after a fire destroyed his school



May 25, 2014



May 28, 2014

- Spencer's cruise received local attention and it helped his small community argue for the school to be rebuilt rather than consolidated

Work begins on new Hoven school

Associated Press 10:12 a.m. CDT September 21, 2015

September 21, 2015



# NOAA's Teacher at Sea Program 2016 Year in Review



## Teacher Spotlight: Spencer Cody – Alumni Cruise

- In 2016, sailed on hydrographic survey on NOAA Ship *Fairweather*



*TAS '16 Spencer Cody and NOAA Ship Fairweather*



*Student viewing 360° images*

- Took 360° photos & used smartphones & Google cardboards to give students a “Virtual Field Trip”



# NOAA's Teacher at Sea Program 2016 Year in Review



## Alumni Activities and Events

- Teacher at Sea alumni participated in **35 events** and shared their research experience with their schools, communities, and the public
- **8 local, regional, or national conferences** at which a total of 62 TAS alumni delivered presentations
- Collaborations with as many as 30 NOAA scientists



*TAS '15 Cristina Veresan, NOAA scientist Denise McKelvey, and TAS Alumni Coordinator Jenn Annetta at Smithsonian "Expert is In" Event*



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## Highlight: Seven Seas Celebration at Weatherly Heights Elementary in Huntsville, Alabama

- Annual school-wide ocean-themed family event on April 15, 2016
- Created and managed by TAS alumna Sue Zupko
- Participants made nautical flags, tracked a drifter buoy, created and measured fish
- NOAA Corps LT Jonathan Heesch participated and taught participants about ship safety



*LT Heesch poses with a Seven Seas Celebration participant trying on a survival suit*

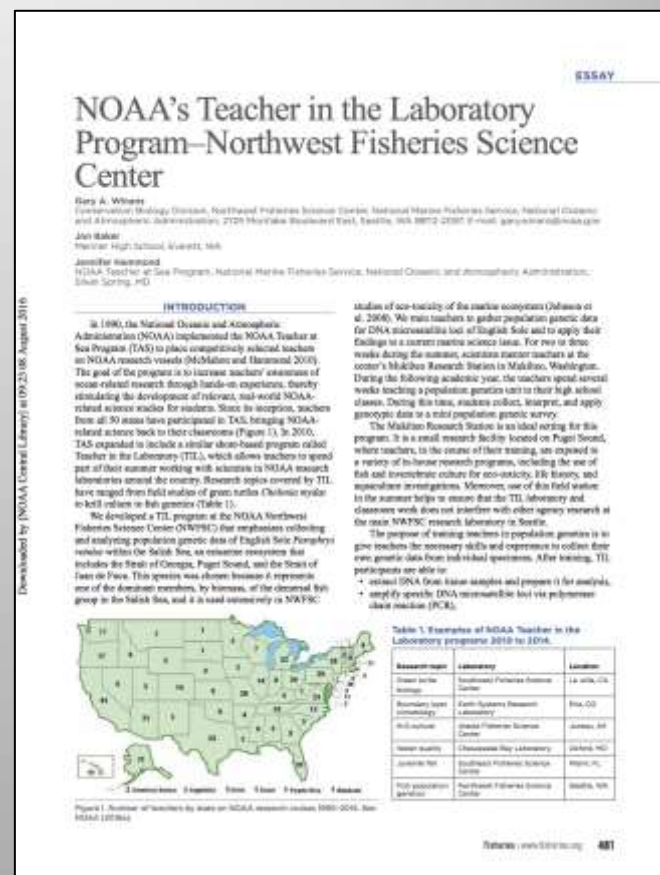


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## Highlight: Teacher in the Lab (TIL) project profiled in Fisheries

- Published article by long-time collaborator NOAA scientist Gary Winans at Northwest Fisheries Science Center
- TIL pilot project involves WA teachers & their students in genetic stock structure analysis



Gary A. Winans, Jon Baker & Jennifer Hammond (2016) NOAA's Teacher in the Laboratory Program—Northwest Fisheries Science Center, Fisheries, 41:8, 481–483



# NOAA's Teacher at Sea Program Year in Review



## Highlight: Workshop & Evaluation

- Successful Pacific Northwest Alumni Workshop November 2016 at NOAA's Western Regional Center
  - Connected with 20 TAS alumni from the Pacific Northwest (WA, OR, WY, MT and AK)
  - Met NOAA scientists and experts from the region and explored NOAA resources, facilities, materials, and activities
- Participating in an external evaluation with the goal to research the long-term and unexpected outcomes of the program with a final report expected in March 2017



*Pacific Northwest Teacher at Sea Alumni Workshop at NOAA's Western Regional Center in Seattle, November 4-6*



# NOAA's Teacher at Sea Program 2017 Season Outlook



## 2017 Season Outlook

- Selected 30 teachers out of 280 applicants to start sailing in March
- Participating in many National and local education and outreach events
- Managing a Gulf Coast Alumni Workshop tentatively planned for May 2017





# NOAA's Teacher at Sea Program

## Teacher Perspectives



"[The scientists on board R/V *Norseman II*] are teachers in their own right. Their enthusiasm for their work and for learning new things is infectious and I plan to carry that attitude back to my students in Scammon Bay, infusing my classroom with awe and excitement to be brave, conscientious, problem-solving citizens of our magnificent Earth!"

- TAS '16 **Mary Cook**



# NOAA's Teacher at Sea Program

## Teacher Perspectives



"Thank you *Rainier*! I am confident that when I return to my classroom your efforts to help me better understand your work of hydrographic surveying will pay off. You have given me the gift of new knowledge that, when shared with my students has the potential to ignite in them the same excitement and passion for science that so many of you possess."

- TAS '16 **Lynn Kurth**



# NOAA's Teacher at Sea Program Scientist Perspectives



*Photo from [channelislands.noaa.gov](http://channelislands.noaa.gov)*

"Nichia was a pleasure to host. She did an excellent job connecting with the researchers and portraying the importance of their work through the course of her blog posts. [The TAS Program] enables unique interactions between scientists and educators; a diverse and engaged crew is always good to create a positive working environment."

- Chief Scientist **Chris Caldwell**,  
Channel Islands National Marine Sanctuary



# NOAA's Teacher at Sea Program Scientist Perspectives



*Photo from [nwfsc.noaa.gov](http://nwfsc.noaa.gov)*

“Cathrine was a committed member of the science party from the moment she stepped on board. She was invaluable in the lab and eager to learn the other aspects of our work at sea. Both Scientists and Crew enjoyed her blog and cartoons...and I even heard a few comment that they learned something from them! Cathrine was an excellent ambassador for the TAS program and I have no doubt she'll translate what she learned during her time with us into engaging lessons for teachers and students.”

- Chief Scientist **Sandy Parker-Stetter**,  
Northwest Fisheries Science Center